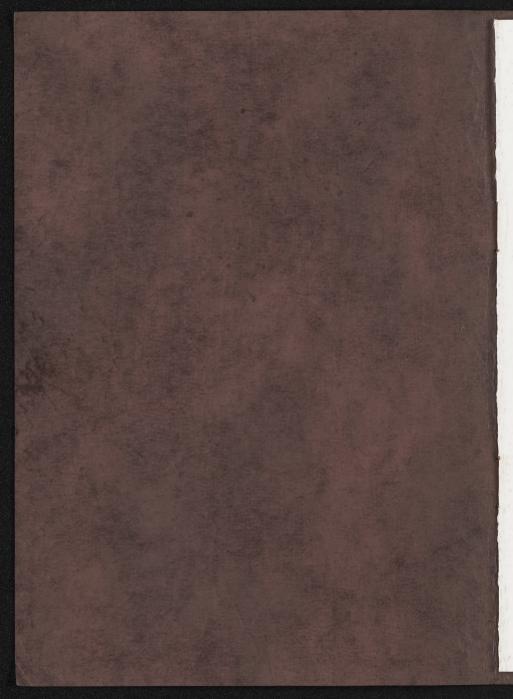
BEST



Being a supplement to "Selling the Best"

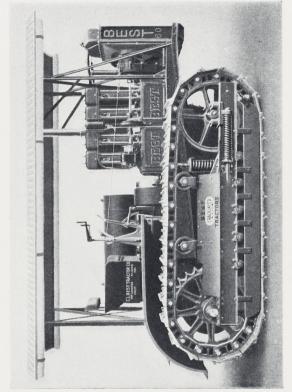
C. L. Best Tractor Co.

General Office – Factory – San Leandro, California Factory Branch – Warehouse – St. Louis, Missouri

SALES OFFICES

San Francisco – 127 Montgomery Street New York – 30 Church Street

Dealers throughout the United States



The BEST "Sixty"



HIS BOOKLET has been prepared in order that you who are selling Best Tractors may fully appreciate and be prepared to emphasize the

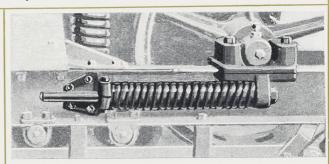
many improvements and refinements which have recently been incorporated in each model.

The increasing betterment of Best Tractors guarantees for the future their present enviable position.

New improvements are constantly being worked out—refinements here and changes there, seemingly small in themselves perhaps, but contributing largely to the completed unit

On both the "Sixty" and the "Thirty" the front idler bearings are now equipped with recoil springs, which allow the front idler to move back if any obstruction gets between the track and sprocket. This feature enables

The Track Tension Spring



the tractor to work and turn short in loose ground or snow without having to replace the tightener pins, as was formerly necessary. The movement of the idler is entirely automatic. It will return to its normal position as soon as the obstruction is removed. The drop forged steel bracket that takes the recoil of the spring is bolted between the webs of the side channels. This construction makes it impossible for the bracket to spring the side channels in any way.

Heavier type front idlers, much stronger

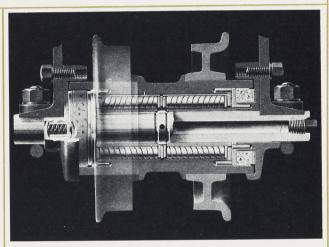
than those formerly used, have been installed.

The Stromberg carburetor has been adopted as standard equipment on all Best Tractors.

The governor spring is enclosed on both "Thirty" and "Sixty," preventing the operator from overspeeding the motor.

The track roller bearings on both "Thirty" and "Sixty" are now protected from the entrance of dirt by an improved seal, which should more than double the life of the bearings. Two cork seals are used, of triangular cross section, reacting against each other in such a way that their combined cross section is rectangular. They are located between the end of the roller hub, which moves, and the end collar, which is stationary. Against the outer one of the cork seals bears a flat steel washer, against which bear two small coil springs located in recesses in the end collar. The pressure of these springs, through the

Cross Section of Track Roller



steel washer, keeps the two cork seals pressed together and tends to spread them radially so that the space between hub and collar, through which dirt might enter, is at all times tightly closed. These cork seals are inexpensive, easily replaceable and, if track roller lubrication is attended to at proper intervals, should be long lived.

The track rollers on the "Thirty" are now equipped with larger bearings having about 40% more capacity than those formerly used. On the "Sixty" the track roller shafts are now made with a flat on each side so they can be reversed when one side is worn.

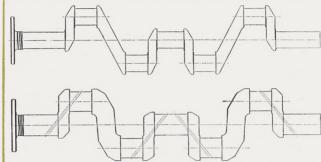
The "Sixty" motor contains the latest developments in motor construction that have been worked out to make a good motor better.

The crank case has been strengthened in many ways and is extremely rigid. The crank shaft diameter has been increased from 3 ins. to $3\frac{3}{4}$ ins. The weight increase is from 174 lbs. to 296 lbs.

The bearing lengths are, front, $4\frac{3}{4}$ ins.; center, 6 ins.; rear, 6 ins.

The center bearing is longer and has 53.8% more area than the center bearing of the former crank.

Showing Relative Sizes of Old and New "Sixty" Crank Shaft



In addition to increasing the diameter of the main bearings and crank pins, the webs also have been made heavier and strengthened, making the whole crank stronger and more rigid. The bearing sizes are so proportioned that equal wear will take place in all of them.

The bearings are now supported in a box girder section of the crank case, which has a wall under each end of the bearing. The caps are held in place with alloy steel studs and have extra long castellated nuts.

The new "Sixty" motor is lubricated by a pressure oiling system. The oil pump is mounted in the sump and delivers oil under pressure to the main bearings and connecting rods, through separate pipes to each bearing and through holes drilled in the crank shaft to the connecting rods.

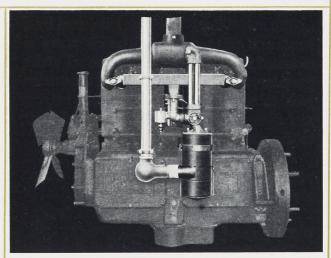
A large oil strainer of the bucket type is placed between the crank and the sump so that all the oil is constantly strained as it circulates through the motor. This strainer is easily removable for cleaning.

The pistons have four rings above the wrist pin and one oil scraper ring below.

The main bearings and connecting rods are so constructed that the babbitt does not overhang the bearing. This prevents any danger of the babbitt breaking off if the bearings are operated in a loose condition.

The bearing next to the fly wheel has an

The Manifold Side of the "Sixty" Motor



oil seal which prevents any leakage of oil even if the tractor is climbing a very steep hill.

The crank case is supported at the rear by two heavy brackets which are bolted to each side of the case. These brackets rest directly on the main tractor frame. The front end

is supported on a cross tie between the side members of the main tractor frame and, like the old model, is held down by studs equipped with heavy coil springs to prevent any twisting of the frame from damaging the motor.

The manifold arrangement on the new "Sixty" motor is entirely new. It provides automatic control of the heating of the air entering the carburetor. This arrangement insures getting the hottest air to the carburetor when the motor is in the idling position or running on light load, and cooler air or cold air when the motor is operating on full load. The motor is also equipped with a larger air cleaner than the one formerly used. This is the second time within a year that the "Sixty" air cleaner has been increased in size.

The valve lift has been increased from 3.8 in. to 9.16 in., giving much better opportunity for a fully efficient charge to enter the cylinders.

The above changes have made it possible for the new "Sixty" motor to deliver more than 60 horsepower to the drawbar and more than 72 horsepower from the belt. Recent tests indicate that this tractor can deliver more than 12,000 pounds pull to the drawbar in low gear, more than 9,000 pounds in second gear and more than 6,000 pounds in high gear, at rated speed.

The "Sixty" strut rod is carried in brackets, which are now bolted to the tops of the swing frame channels instead of on the sides of the channels between the webs. This change in location raises the strut rod several inches farther from the ground and greatly lessens the likelihood of its being bent by striking stumps, stones or other obstructions.

The main tractor frame of the "Sixty" is made up in sections. The cross ties are bolted in place instead of being riveted. This makes

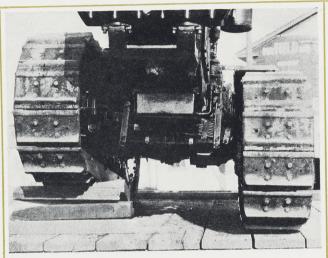
it easy to dismantle the frame should occasion arise. Both the border angles on the side members are extended through to the radiator.

The "Sixty" equalizer bar is carried on two heavy ship channels, which are bolted in place to special brackets riveted to the inside of the frame. The equalizer bar pin is flattened on each end and is held in place with U bolts.

Silcrome steel exhaust valves will stand a higher temperature without burning than did the chrome steel valves formerly used. The Silcrome valves are the same as used in the Liberty motor.

"The "Thirty" motor also has received its share of attention. Longer pistons give better wearing qualities and minimize oil consumption. Increased compression, coupled with the use of the Stromberg carburetor, have resulted in the ability of the present "Thirty" to

Showing the Oscillation of the "Thirty"



deliver its rated drawbar load of 25 horsepower with entire ease.

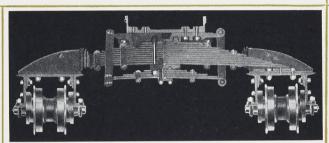
A new arrangement of water passages in the "Thirty" cylinder head insures water circulation around the valve seats, keeping the valves cool and therefore tight. An eightblade fan replaces the former four-blade fan

and assures much more efficient radiation.

On the "Thirty" heavier angle iron braces are used between the swing frames and the sprocket shaft. Heavier reinforcing braces connect the trucks and inside swing frame boxes. These braces are heat-treated steel castings and are secured with nickel steel heat-treated bolts.

The "Thirty" motor and transmission are now supported on a heavy alloy steel leaf spring, which is so mounted that it can oscillate. The main spring is held in place on a cam-shaped bracket and its movement is controlled by a supplementary leaf spring mounted under the main spring. This supplementary spring dampens the oscillation of the main spring so that the main spring gives much the same support to the tractor on side hills as did the solid equalizer bar. The main spring and the supplementary spring are both held

The New Equalizer Spring on the "Thirty"



together by heat-treated alloy steel clips.

This spring support acts with extreme flexibility and absorbs most of the shocks and jars occasioned by driving the tractor over rough and uneven surfaces. It also allows full oscillation of the truck frame. It is one of the most valuable of the recent improvements incorporated in this machine.

The "Thirty" sprocket shaft now has a bearing at its center, which makes this shaft more rigid and gives better support to the inside swing frame bearings.

Improved dirt guards are placed around

the sprockets and assist materially in keeping dirt from getting into the tracks.

The track centers of the "Thirty" are 2 ins. wider, and the over-all width on the ground is $4\frac{1}{2}$ ins. more.

The track shoe width is 13 ins. instead of $11^{1}/_{2}$ ins., giving better traction. The track shoes are held on the links with nickel steel heat-treated bolts. These bolts have $2^{1}/_{2}$ times the tensile strength of the machine bolts formerly used.

The most important change of the year on the "Thirty" was the change from two forward speeds to three. The present speeds are:

Low	13/4 M. P. H.
Intermediate	
High	
Reverse	2 M. P. H.

A selective type gear shift lock is used, which can be operated with one hand.

Gears of heavier pitch are used in the transmission and final drive.

The "Thirty" bull pinion, as well as the "Sixty," has a bearing on each side instead of being overhung with a bearing on only one side as formerly. Bock adjustable taper roller bearings made from alloy steel are used on each side of the bevel gear and in the sprocket hub.

The "Thirty" reverse idler gear bearings have been increased in size. The reverse idler pin is heavier and is drilled to feed the oil to the center of the bearing.

DEST TRACTURS

The BEST "Thirty"

